Service Schematics

NOKIA 2610

RH-86

Introduction

Important:

This document is intended for use by authorized service centers only.

“Service Schematics“ was created with focus on customer care.
The purpose of this document is to provide further technical repair information for NOKIA mobile phones on Level 3/4 service activities.
It contains additional information such as e.g. “Component finder”, “Frequency band table” or “Antenna switch table”.
The “Signal overview” page gives a good and fast overview about the most important signals and voltages on board.
Saving process time and improving the repair quality is the aim of this document.
It is to be used additionaly to the service manual and other training or service information such as Service Bulletins.

All measurements were made using following equipment:

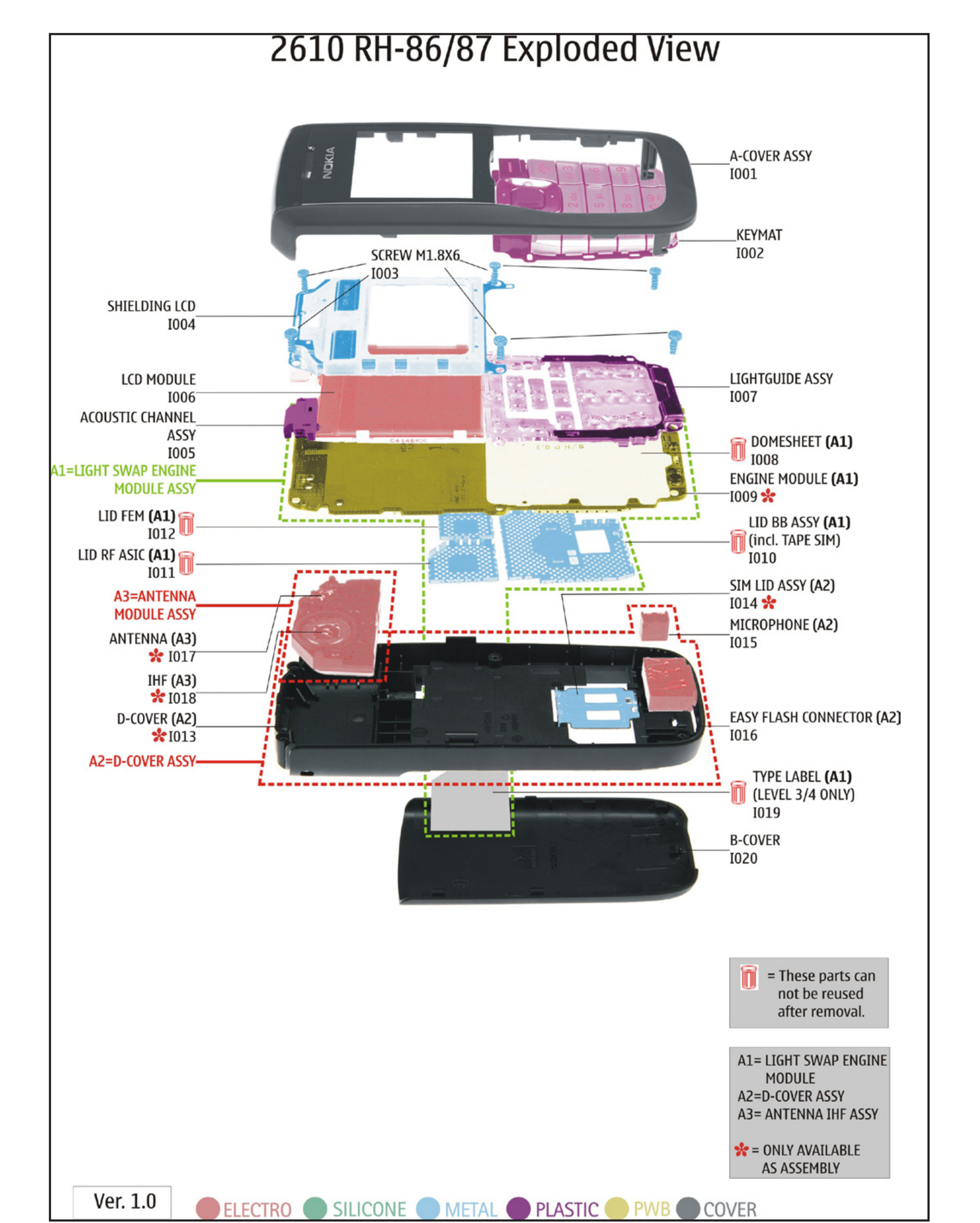
Nokia repair SW	:	Phoenix version 2006.04.6.130
Oscilloscope	:	Fluke PM 3380A/B
Spectrum Analyzer	:	Advanced R3162 with an analog probe
RF-Generator/GSM Tester	:	Rhode & Schwarz CMU 200
Multimeter	:	Fluke 73 Series II

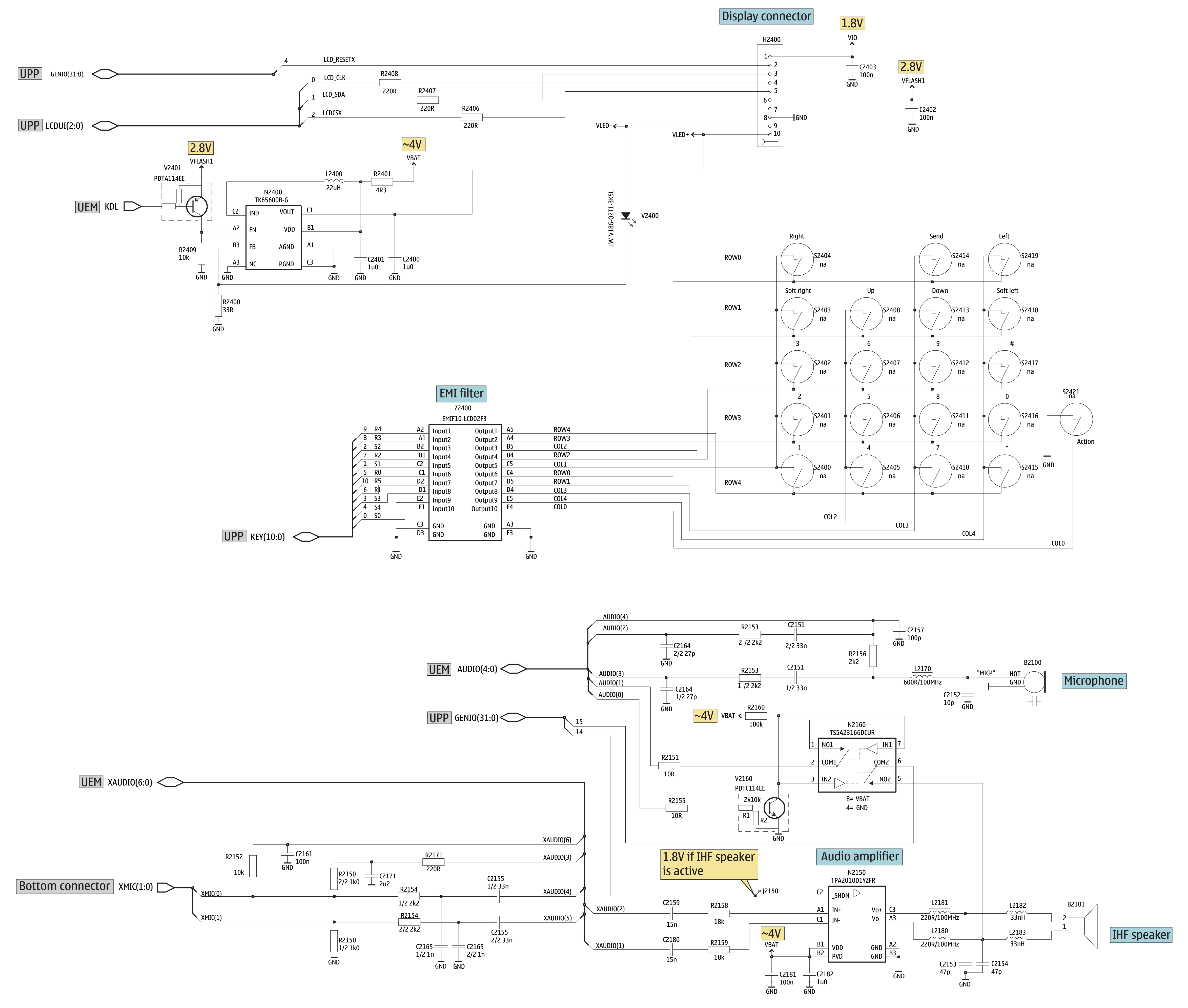
While every endeavour has been made to ensure the accuracy of this document, some errors may exist. If the reader finds any errors, NOKIA shall be notified in writing.

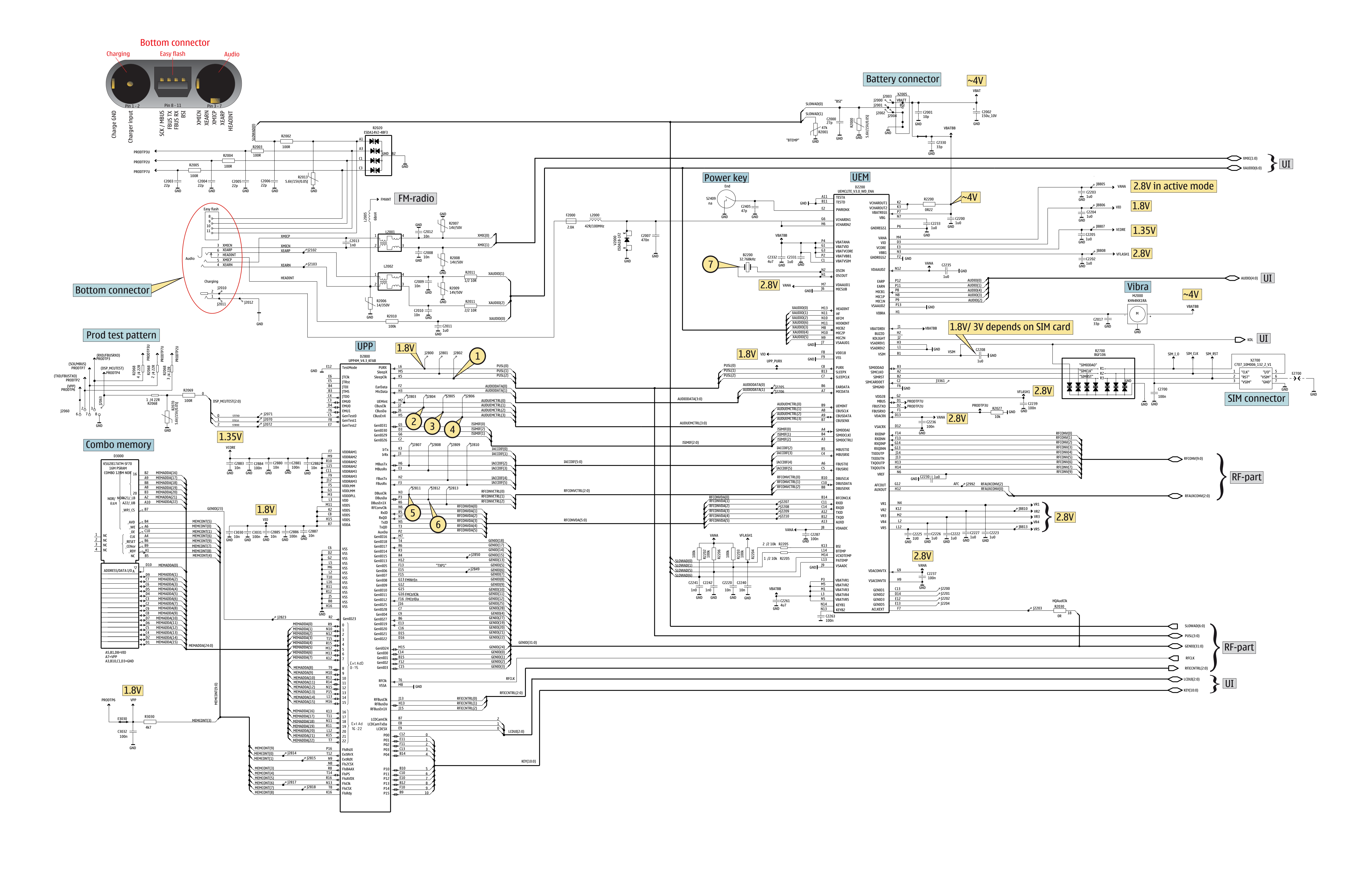
Please send E-Mail to: **training.sace@nokia.com**

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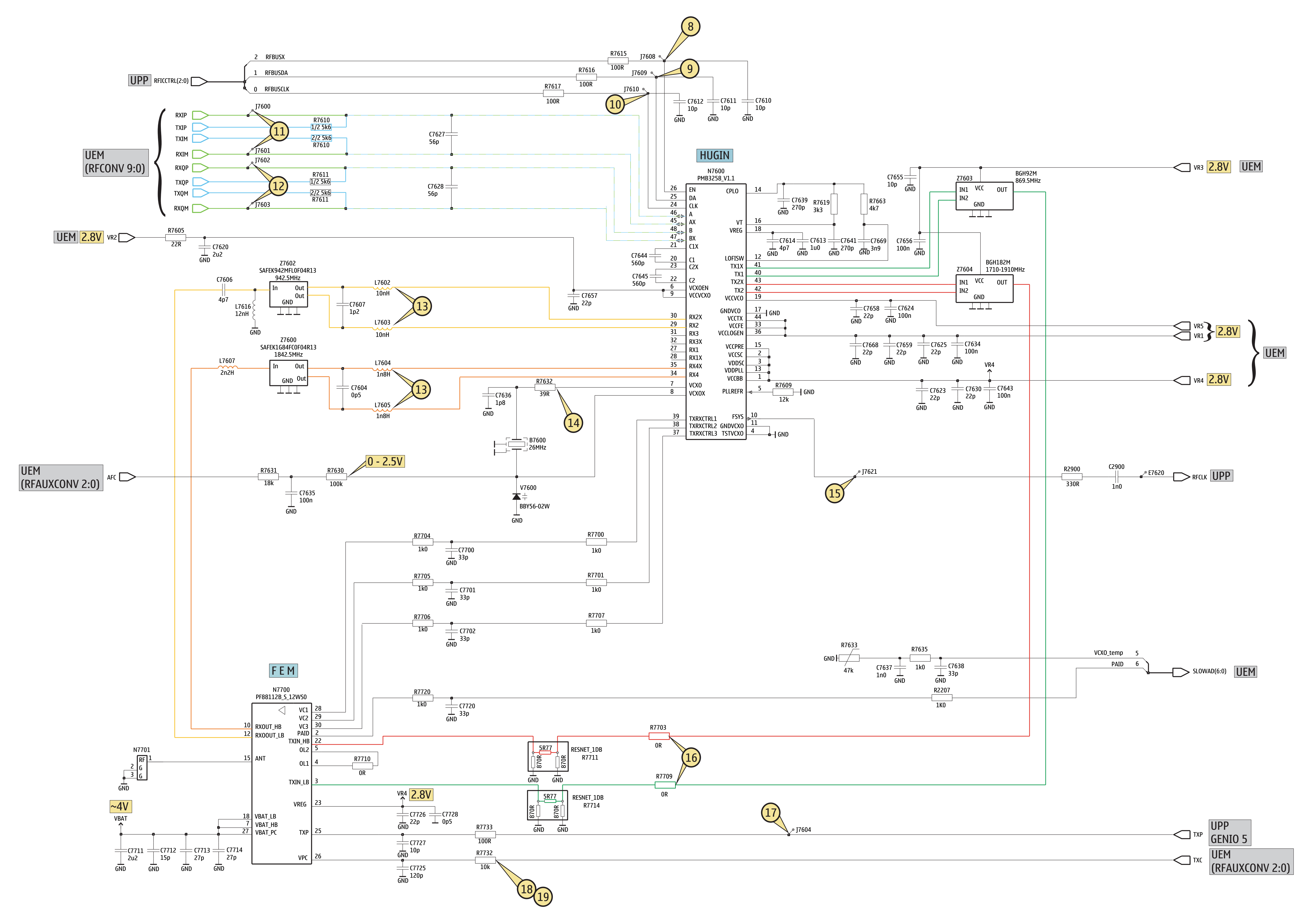
Exploded view and component disposal

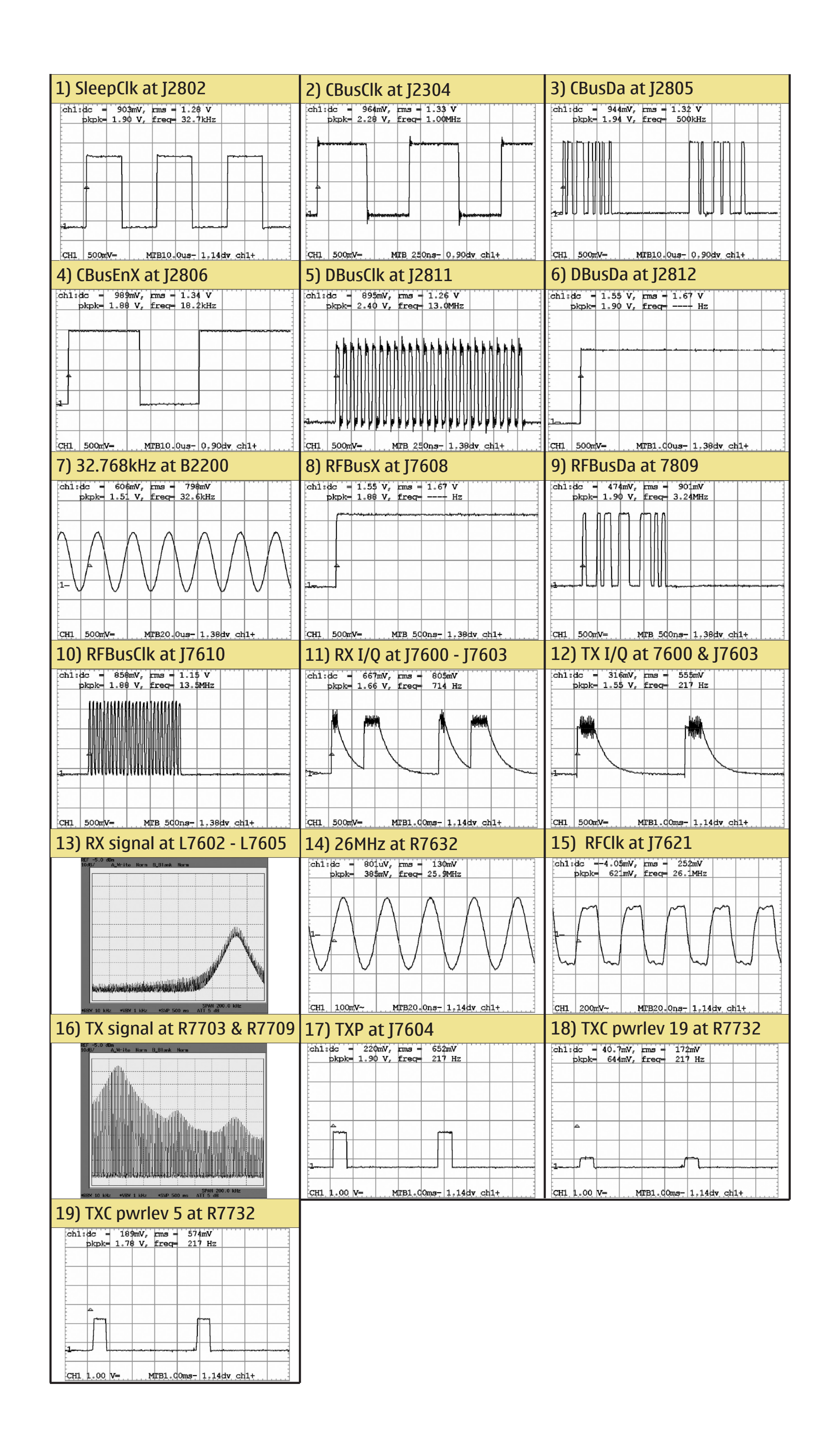


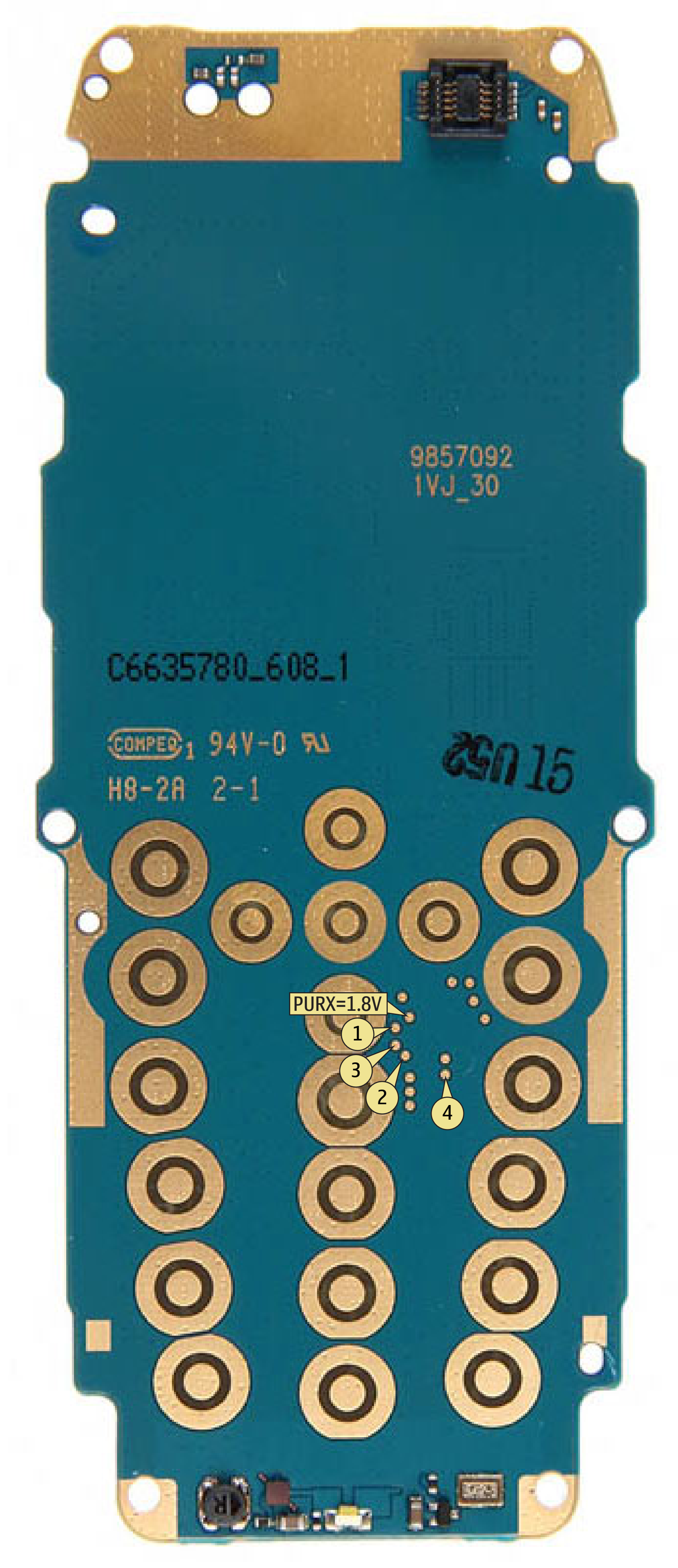

Display connector
1.8V
2.8V
UPP
GENIO(31:0)
LCDUI(2:0)
LCD_RESETX
LCD_CLK
LCD_SDA
LCDCSX
H2400
VIO
VFLASH1
VLED-
VLED+
UEM
KDL
V2401
PDTA114EE
N2400
TK65600B-G
~4V
VBAT
L2400
22uH
R2401
4R3
V2400
Right
Send
Left
Soft right
Up
Down
Soft left
ROW0
ROW1
ROW2
ROW3
ROW4
COL0
COL2
COL3
COL4
Action
EMI filter
Z2400
EMIF10-LCD02F3
KEY(10:0)
AUDIO(4:0)
Microphone
B2100
N2160
TS5A23166DCUR
V2160
PDTC114EE
XAUDIO(6:0)
Bottom connector
XMIC(1:0)
1.8V if IHF speaker is active
Audio amplifier
N2150
TPA2010D1YZFR
B2101
IHF speaker

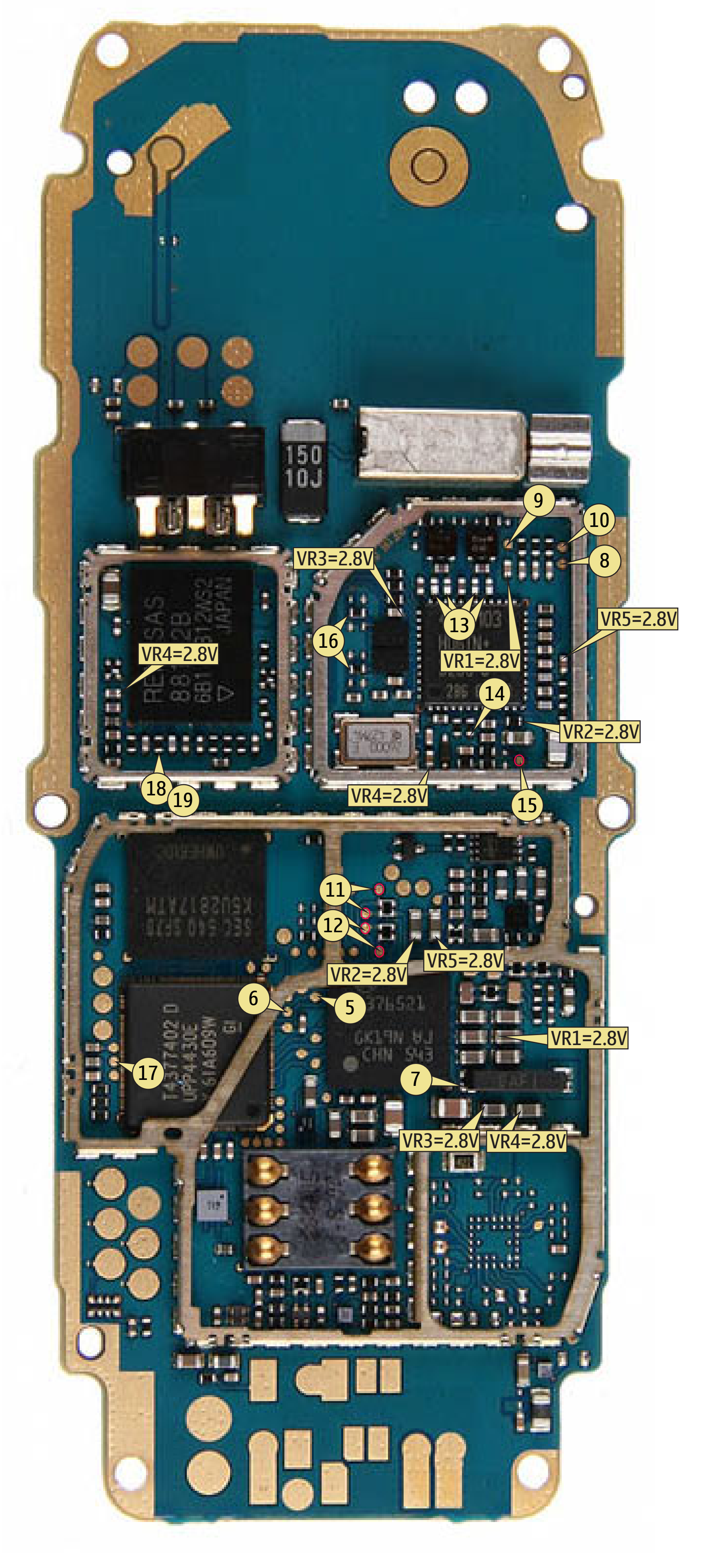


Bottom connector
Charging
Easy flash
Audio
Battery connector
~4V
UI
Power key
UEM
FM-radio
2.8V in active mode
1.8V
1.35V
2.8V
Vibra
1.8V/ 3V depends on SIM card
SIM connector
Bottom connector
Prod test pattern
UPP
Combo memory
RF-part


UPP
RFICCTRL(2:0)
RFBUSX
RFBUSDA
RFBUSCLK
R7615
100R
R7616
100R
R7617
100R
J7608
J7609
J7610
C7612
10p
C7611
10p
C7610
10p
GND
UEM
(RFCONV 9:0)
RXIP
TXIP
TXIM
RXIM
RXQP
TXQP
TXQM
RXQM
J7600
J7601
J7602
J7603
R7610
1/2 5k6
2/2 5k6
R7611
C7627
56p
C7628
56p
HUGIN
N7600
PMB3258_V1.1
EN
DA
CLK
A
AX
B
BX
C1X
C1
C2X
C2
VCXOEN
VCCVCXO
RX2X
RX2
RX3
RX3X
RX1
RX1X
RX4X
RX4
VCXO
VCXOX
TXRXCTRL1
TXRXCTRL2
TXRXCTRL3
CPLO
VT
VREG
LOFISW
TX1X
TX1
TX2X
TX2
VCCVCO
GNDVCO
VCCTX
VCCFE
VCCLOGEN
VCCPRE
VCCSC
VDDSC
VDDPLL
VCCBB
PLLREFR
FSYS
GNDVCXO
TSTVCXO
UEM 2.8V VR2
R7605
22R
C7620
2u2
C7657
22p
C7644
560p
C7645
560p
Z7602
SAFEK942MFL0F04R13
942.5MHz
Z7600
SAFEK1G84FC0F04R13
1842.5MHz
C7606
4p7
L7616
12nH
C7607
1p2
L7602
10nH
L7603
10nH
L7607
2n2H
C7604
0p5
L7604
1n8H
L7605
1n8H
C7636
1p8
R7632
39R
B7600
26MHz
V7600
BBY56-02W
UEM
(RFAUXCONV 2:0)
AFC
R7631
18k
R7630
100k
0 - 2.5V
C7635
100n
C7639
270p
R7619
3k3
R7663
4k7
C7614
4p7
C7613
1u0
C7641
270p
C7669
3n9
C7655
10p
C7656
100n
Z7603
BGH92M
869.5MHz
Z7604
BGH182M
1710-1910MHz
IN1
IN2
VCC
OUT
VR3 2.8V UEM
C7658
22p
C7624
100n
VR5
VR1
2.8V
UEM
C7668
22p
C7659
22p
C7625
22p
C7634
100n
VR4
VR4 2.8V
R7609
12k
C7623
22p
C7630
22p
C7643
100n
J7621
R2900
330R
C2900
1n0
E7620
RFCLK
UPP
R7704
1k0
C7700
33p
R7700
1k0
R7705
1k0
C7701
33p
R7701
1k0
R7706
1k0
C7702
33p
R7707
1k0
R7633
47k
C7637
1n0
R7635
1k0
C7638
33p
VCXO_temp
PAID
SLOWAD(6:0)
UEM
R2207
1K0
FEM
N7700
PF88112B_S_12WS0
VC1
VC2
VC3
PAID
TXIN_HB
OL2
OL1
TXIN_LB
VREG
TXP
VPC
RXOUT_HB
RXOOUT_LB
ANT
VBAT_LB
VBAT_HB
VBAT_PC
R7720
1k0
C7720
33p
R7703
0R
R7710
0R
5R77
870R
RESNET_1DB
R7711
R7709
0R
R7714
N7701
VR4 2.8V
C7726
22p
C7728
0p5
C7727
10p
C7725
120p
R7733
100R
R7732
10k
J7604
~4V
VBAT
C7711
2u2
C7712
15p
C7713
27p
C7714
27p
UPP
GENIO 5
TXP
UEM
(RFAUXCONV 2:0)
TXC
8
9
10
11
12
13
14
15
16
17
18
19


1) SleepClk at J2802
2) CBusClk at J2304
3) CBusDa at J2805
4) CBusEnX at J2806
5) DBusClk at J2811
6) DBusDa at J2812
7) 32.768kHz at B2200
8) RFBusX at J7608
9) RFBusDa at 7809
10) RFBusClk at J7610
11) RX I/Q at J7600 - J7603
12) TX I/Q at 7600 & J7603
13) RX signal at L7602 - L7605
14) 26MHz at R7632
15) RFClk at J7621
16) TX signal at R7703 & R7709
17) TXP at J7604
18) TXC pwrlev 19 at R7732
19) TXC pwrlev 5 at R7732


9857092
1VJ_30
C6635780_608_1
94V-0
H8-2A 2-1
PURX=1.8V
1
2
3
4


9
10
8
VR3=2.8V
VR5=2.8V
13
16
VR4=2.8V
VR1=2.8V
14
VR2=2.8V
18
19
VR4=2.8V
15
11
12
VR5=2.8V
VR2=2.8V
6
5
VR1=2.8V
17
7
VR3=2.8V
VR4=2.8V

B		C2400	U4	C7727	K2	J2843	P4	R2010	S3	R7714	J2
B2200	O7	C2401	U5	C7728	K2	J2844	P4	R2011	R4	R7720	K4
B7600	K5	C2402	C2	D		J2845	P4	R2013	R5	R7732	K2
C		C2403	C2	D2200	O5	J2846	P4	R2020	R5	R7733	K2
C2000	G3	C2405	P5	D2800	O3	J2847	M5	R2027	R5	V	
C2001	G2	C2700	R4	D3000	M3	J2848	O2	R2030	M4	V2000	S7
C2002	G4	C2880	O4	F		J2849	O2	R2068	R2	V2160	L6
C2003	S5	C2881	P3	F2000	T7	J2992	M5	R2069	S2	V2400	U5
C2004	R5	C2882	P3	H		J3361	P5	R2070	S2	V2401	U3
C2005	R5	C2883	O2	H2400	C3	J6161	Q8	R2150	N7	V7600	K6
C2006	R5	C2884	O2	J		J7600	M5	R2151	L7	X	
C2007	S7	C2885	P3	J2000	F2	J7601	M5	R2152	N7	X2005	G3
C2008	R4	C2886	P3	J2001	F3	J7602	M5	R2153	N7	X2060	T3
C2009	R4	C2887	O2	J2002	F3	J7603	N5	R2154	N7	X2700	Q4
C2010	R5	C2900	K7	J2003	F2	J7604	O2	R2155	L6	Z	
C2011	S3	C3030	M2	J2004	F3	J7608	I8	R2156	O7	Z2400	Q3
C2012	R4	C3031	M2	J2010	T6	J7609	H7	R2158	N7	Z7600	H6
C2013	R3	C3032	M2	J2011	U4	J7610	H8	R2159	N7	Z7602	H7
C2017	G5	C7604	I6	J2012	T6	J7621	K7	R2160	L6	Z7603	J5
C2151	N7	C7606	H7	J2060	R2	J8805	M5	R2171	N8	Z7604	J5
C2152	S3	C7607	I7	J2063	Q2	J8806	N2	R2200	P6		
C2153	B6	C7610	I8	J2070	N2	J8807	O4	R2202	M7		
C2154	B7	C7611	I7	J2071	O2	J8808	M6	R2203	M7		
C2155	N6	C7612	I7	J2072	N2	J8810	M6	R2204	M6		
C2157	O8	C7613	I7	J2102	T4	J8813	M6	R2205	M6		
C2159	N7	C7614	J7	J2103	S4	L		R2206	M7		
C2161	N8	C7620	K7	J2150	N4	L2000	T7	R2207	L4		
C2164	N6	C7623	J7	J2200	N5	L2001	R3	R2400	U5		
C2165	N7	C7624	J8	J2201	N5	L2002	R4	R2401	U6		
C2171	N8	C7625	J6	J2202	N5	L2170	S3	R2406	O2		
C2180	N7	C7627	J5	J2203	N4	L2180	M7	R2407	P2		
C2181	M7	C7628	J5	J2204	M5	L2181	M7	R2408	P2		
C2182	M7	C7630	K6	J2205	O4	L2182	B6	R2409	T4		
C2200	O7	C7634	I7	J2206	O4	L2183	B6	R2700	P4		
C2202	O7	C7635	K6	J2207	N4	L2400	U6	R2900	K7		
C2203	O7	C7636	K6	J2208	N4	L7602	I7	R3030	M2		
C2204	P5	C7637	K2	J2209	N4	L7603	I7	R7605	K7		
C2205	P5	C7638	K2	J2210	N4	L7604	I6	R7609	K6		
C2208	P4	C7639	J7	J2800	N4	L7605	I6	R7610	M5		
C2220	M7	C7641	J7	J2801	N4	L7607	H6	R7611	M5		
C2222	P7	C7643	K6	J2802	N4	L7616	H6	R7615	H8		
C2223	O7	C7644	J7	J2803	O3	M		R7616	H7		
C2225	M6	C7645	I7	J2804	O4	M2000	G6	R7617	H7		
C2226	P7	C7655	I5	J2805	O4	N		R7619	J8		
C2227	M6	C7656	J5	J2806	O3	N2150	M7	R7630	K6		
C2230	O7	C7657	K7	J2807	O4	N2160	L7	R7631	K7		
C2233	O7	C7658	J7	J2808	O4	N2400	T6	R7632	K6		
C2235	M7	C7659	I6	J2809	O4	N7600	J7	R7633	K2		
C2236	M5	C7668	I6	J2810	O4	N7700	J3	R7635	K2		
C2237	M5	C7669	K8	J2811	N4	R		R7663	K8		
C2239	P5	C7700	K3	J2812	N4	R2000	G3	R7700	I5		
C2240	M6	C7701	K3	J2813	N4	R2001	R3	R7701	I5		
C2241	M6	C7702	K4	J2814	N3	R2002	R5	R7703	J5		
C2242	M6	C7711	I2	J2815	N3	R2003	R5	R7704	K3		
C2261	P6	C7712	I4	J2817	N3	R2004	R5	R7705	K3		
C2263	R8	C7713	I2	J2818	N3	R2005	S5	R7706	K3		
C2287	M5	C7714	K3	J2823	N4	R2006	R5	R7707	I5		
C2330	G2	C7720	K4	J2840	P4	R2007	R4	R7709	I5		
C2331	P5	C7725	K3	J2841	P4	R2008	S4	R7710	J4		
C2332	P5	C7726	J2	J2842	P4	R2009	R4	R7711	J4		

TOP

BOTTOM

Battery connector X2005

Vibra M2000

C2002

FEM N7700

HUGIN N7600

A7003

A7002

B7600

Combo memory D3000

D2800

UPP

D2200 UEM

B2200

R2200

X2700

A7001